

# Complications of Pregnancy

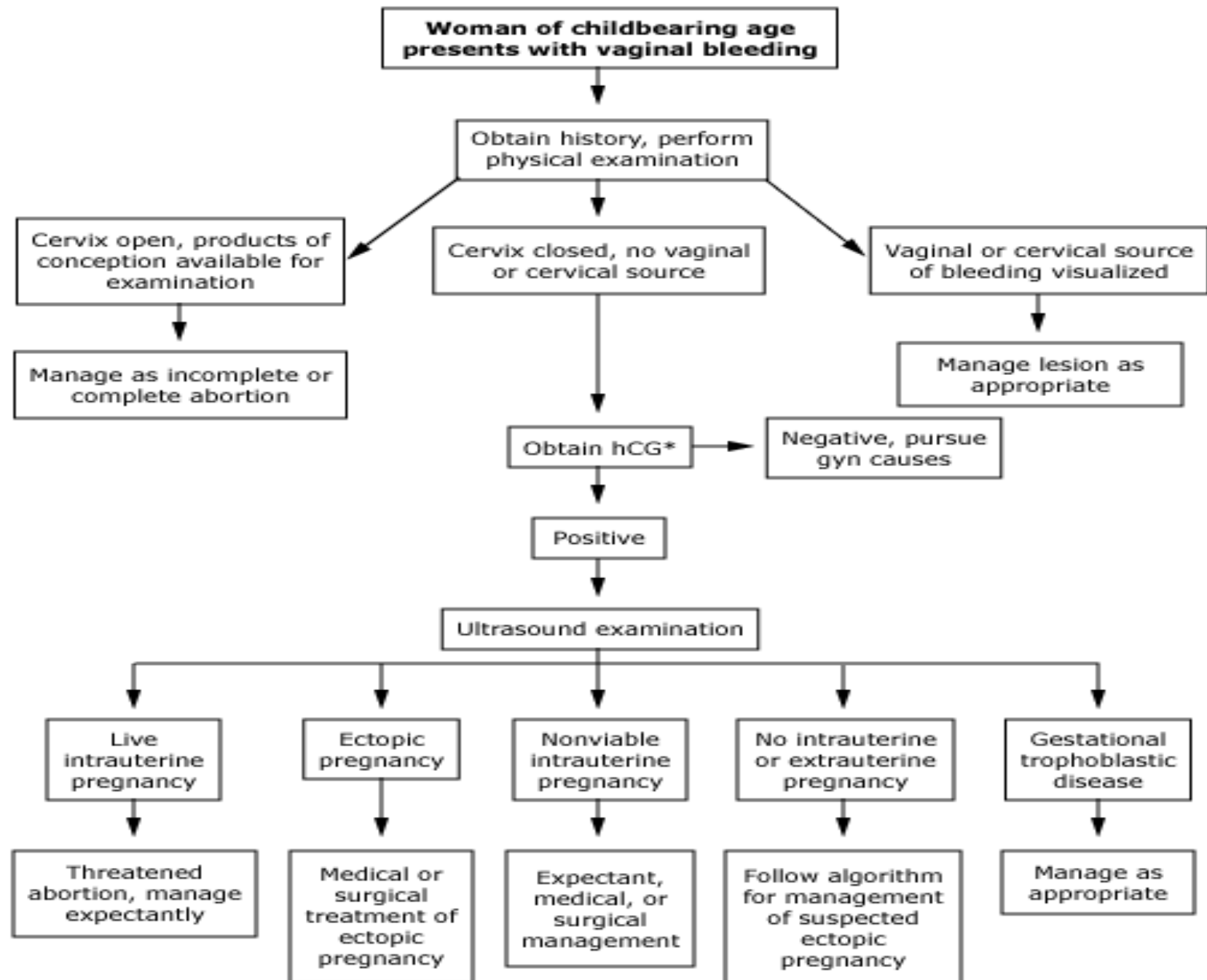
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Women's Health

# First Trimester

- Bleeding/spotting
  - Occurs in 20-40% of pregnancies
- Spontaneous abortion
  - Occurrence rate 20%
- Missed abortion (POC remain in utero)
  - Common if fetal development stops between 8 and 12 weeks
- Incomplete abortion



# Gestational Hypertension

- Elevated BP, proteinuria, edema
- Bedrest
- Delivery as soon as feasible
- MgSO<sub>4</sub>
- Labetalol
- Prevent seizure if at all possible

# Hypertension Terminology

- Gestational Hypertension (used to be called PIH or PAH)
- Pre-eclampsia
- Eclampsia
- Superimposed Pre-eclampsia
- Chronic hypertension

# Routine lab tests to evaluate Gestational Hypertension

- CBC
  - Hgb/hct often concentrated, thus higher than previous levels
  - Low platelets
- AST (a liver enzyme, aspartate aminotransferase)
- Serum creatinine
- 24 hour urine to check for proteinuria

# HELLP Syndrome

- Severe form of gestational hypertension, characterized by
  - Hemolysis
  - Elevated Liver enzymes
  - Low Platelets
- Cure is delivery as soon as feasible

# Gestational Diabetes

- Increased demand on the pancreas
- Obesity is biggest risk factor
- Screening with one-hour glucose tolerance test at 24-28 weeks gestation (50 grams of glucose)
- $<130$  mg/dL is normal,  $>130$  requires further testing with 3-hour GTT
- 3-hour GTT—4 values: FBS, 1, 2, and 3 hours post 100 gram glucose load



# Gestational Diabetes

- If diagnosis of GDM is made, patient is usually referred to a Diabetes Center where education and close monitoring of blood sugars can be carried out.
- Target range for glucose readings is 80 –120 mg/dL
- ADA diet
- Insulin
- Post partum follow-up, and impact for development of DM later in life

# Thyroid Disease

- Importance of keeping mother euthyroid
  - Hypothyroid most common
  - Testing of TSH with reflex to Free T4 in each trimester to maintain proper dose of synthroid or its equivalent
  - Dosing may change as pregnancy advances, and should be checked again at 6 weeks post partum
  - Impact of breastfeeding

# Skin Changes/Rashes

- Striae
  - At first, red/purple, very itchy
  - Fade to skin color or slightly paler after delivery
- PUPP/PUPPPP
  - Pustules, urticaria, and papules of pregnancy
  - Pustules, urticaria, and papules post partum
  - Treatment: benedryl lotion, steroids if severe

# Maternal Infection

- Herpes
  - Use of Valtrex 500 mg Q.D. from 36 weeks to delivery
- Group B streptococcus
  - Culture at 36 weeks, treatment with IV ampicillin during labor if positive
  - Impact for baby if untreated

# Placenta Previa

- Complete/Partial/Marginal
- Ultrasound diagnosis
- Mode of delivery
- Pregnancy precautions

Total  
Placenta  
Previa

Requires  
delivery  
by C-  
Section

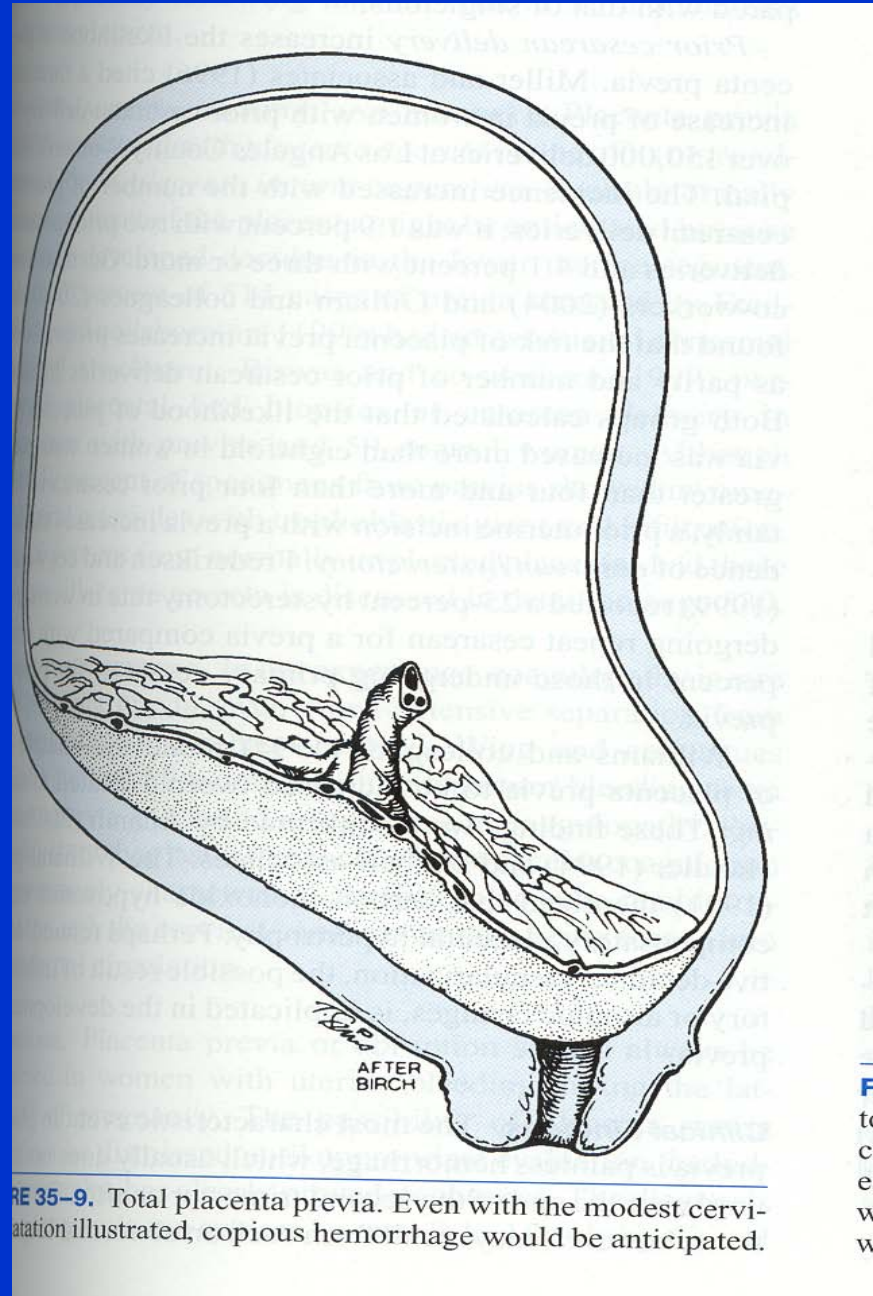


FIGURE 35-9. Total placenta previa. Even with the modest cervical dilatation illustrated, copious hemorrhage would be anticipated.

Significant  
risk of  
hemorrhage

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# Placental Abruption

- Quick diagnosis and management necessary
- Life-threatening for fetus
- Higher incidence in women who abuse cocaine during pregnancy
- Usually the result of placental disorder during the pregnancy that culminates in the dramatic abruption during labor

# Partial or Chronic Placental Abruption

- Ultrasound diagnosis
- Usually results in small for gestational age baby
- Risk Factors
  - Smoking
  - Maternal hypertension
  - Significant maternal physical trauma, eg MVA
  - Cocaine use



# Multiple Gestation

- Twins 1/100 pregnancies
- Triplets 1/1000
- Impact of advanced reproductive technologies
- Vertex/vertex allows for vaginal delivery
- Risk of vaginal for first twin/C-Section for second twin
- Importance of ultrasound guidance

### *Determining Your Body Mass Index (BMI)*

The table below has already done the math and metric conversions. To use the table, find the appropriate height in the left-hand column. Move across the row to the given weight. The number at the top of the column is the BMI for that height and weight. Or, use our [BMI calculator](#).

BMI (kg/m <sup>2</sup> )	19	20	21	22	23	24	25	26	27	28	29	30	35	40
Height (in.)	Weight (lb.)													
58	91	96	100	105	110	115	119	124	129	134	138	143	167	191
59	94	99	104	109	114	119	124	128	133	138	143	148	173	198
60	97	102	107	112	118	123	128	133	138	143	148	153	179	204
61	100	106	111	116	122	127	132	137	143	148	153	158	185	211
62	104	109	115	120	126	131	136	142	147	153	158	164	191	218
63	107	113	118	124	130	135	141	146	152	158	163	169	197	225
64	110	116	122	128	134	140	145	151	157	163	169	174	204	232
65	114	120	126	132	138	144	150	156	162	168	174	180	210	240
66	118	124	130	136	142	148	155	161	167	173	179	186	216	247
67	121	127	134	140	146	153	159	166	172	178	185	191	223	255
68	125	131	138	144	151	158	164	171	177	184	190	197	230	262
69	128	135	142	149	155	162	169	176	182	189	196	203	236	270
70	132	139	146	153	160	167	174	181	188	195	202	207	243	278
71	136	143	150	157	165	172	179	186	193	200	208	215	250	286
72	140	147	154	162	169	177	184	191	199	206	213	221	258	294
73	144	151	159	166	174	182	189	197	204	212	219	227	265	302
74	148	155	163	171	179	186	194	202	210	218	225	233	272	311
75	152	160	168	176	184	192	200	208	216	224	232	240	279	319
76	156	164	172	180	189	197	205	213	221	230	238	246	287	328

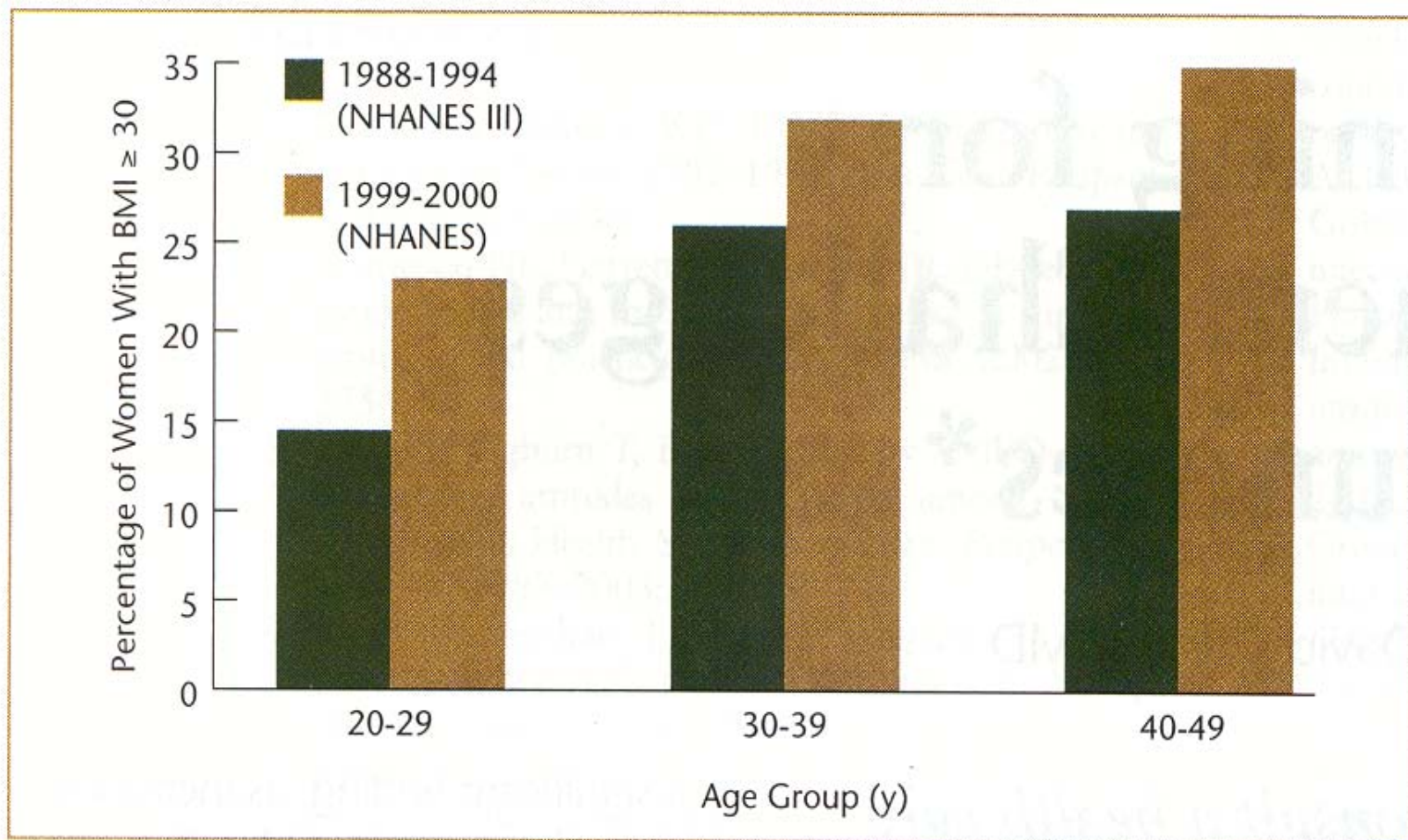
**Body weight in pounds according to height and body mass index.**

## BMI

18.5 or less	Underweight
18.5-24.9	Normal
25.0-29.9	Overweight
30.0-34.9	Obese
35.0-39.9	Very Obese
40 or greater	Extremely Obese

# Obesity

- 50% of American adults are over-weight
- Sedentary lifestyles are the main cause, along with increased calorie consumption
- At risk for cardiac disease, diabetes, discomfort during pregnancy and difficult delivery
- Key to success is avoiding childhood obesity



**FIGURE.** Change in proportion of obese women in the United States by age group, 1988 to 2000.<sup>1</sup>

NHANES = National Health and Nutrition Examination Survey; BMI = body mass index.

# Asthma

- Incidence is 7% of the general population.
- Prevalence is increasing.
- Chronic inflammatory airway disorder.
- Has a hereditary component.
- In pregnancy, 1/3 get better, 1/3 stay the same, and 1/3 get worse.

# Asthma Treatment Goals

- Keep airways open
- Good fetal placental perfusion
- Medication/inhalers as needed
- Avoid triggers as much as possible
- Treat URIs as soon as possible, to avoid complications

# Urinary Tract Infections

- Asymptomatic bacteriuria
  - Urinalysis should be done at first prenatal visit
  - Pooling of urine in bladder because of growing uterus is a risk factor for urinary retention and higher incidence of UTI during pregnancy
- Acute pyelonephritis
  - IV antibiotics
- Kidney stones
  - Hydration, pain management